

EASTERN APHIDS, NEW OR LITTLE KNOWN, PART I<sup>1</sup>

By EDITH M. PATCH

The present paper resulted from the examination of the collection of Connecticut aphids lent by Dr. W. E. Britton. Several undescribed species were found, some of which were well known in certain collections without having made their way into literature. A few of these are briefly described by the writer of Part I, and the others are presented by Mr. Baker in Part II as he was already at work on the groups those species represent, and kindly undertook their examination.

Most of the species are described with reference to material from Connecticut, though a few not yet reported from that state are included.

## APHIS VIBURNIPHILA n. sp.

(Fig. 20, c, d, e)

ALATE VIVIPARA: Head, eyes, and antenna black, antennal joint III and VI approximately same length and sub-equal to IV + V, III with about 20 sensoria extending whole length, IV with from none to several sensoria, beak extends to second coxæ; thorax black, prothoracic tubercles prominent, wings with rather heavy dark veins; abdomen glabrous, dark red to reddish brown both above and beneath, caudal portion black, four lateral dusky spots cephalad of the cornicles, cornicles cylindrical, black, about twice the length of tarsi, imbrications serrate; cauda and cornicle, black, paler at base; lateral tubercles present, that between cornicle and cauda being prominent.

APTEROUS VIVIPARA: Head black, antenna dark except proximal III which is pale, III with about 15 sensoria which are more numerous on distal half, IV with or without sensoria; thorax reddish brown with prothoracic tubercles; abdomen bright reddish brown with two transverse black stripes cephalad the cauda, cornicles and cauda black.

APTEROUS OVIPARA: Tan-colored form with black cornicles which are slightly more than half as long as in the apterous vivipara; antenna without secondary sensoria; hind tibia but slightly enlarged with a very few sensoria on distal half.

The cotype localities are Orono, Maine, where the writer has collected this interesting aphid for ten years; New Haven, Connecticut, where it has been taken by Dr. W. E. Britton and Mr. H. D. Clark; and Plummer's Island, Maryland, and Great Falls, Virginia, where Mr. W. L. McAtee has collected it, specimens from all these places being examined at time of preparing the description. Mr. J. J. Davis writes (March 22, 1916) that he has this species from St. Louis, and from Chicago where it is sometimes a serious pest of the *Viburnum* in parks.

In Maine this species is present on *Viburnums* during the entire year, being conspicuously abundant during June, July and August. It

<sup>1</sup> Papers from the Maine Agricultural Experiment Station: Entomology No. 88.

attacks cyme, both during flower time and early fruiting, ventral leaves and the tender twigs. The insects are gregarious and their colonies are frequently wellnigh exterminated by hymenopterous parasites. It is sometimes present on the same *Viburnums* with *Aphis viburnicola* Gillette, *A. rumicis* Linn, and *Macrosiphum viticola* Thomas, but there is no need of confusing it with any of these species.

On August 24, 1912, and August 26, 1915, at Orono oviparous females were found to be numerous feeding at berry clusters and depositing eggs thickly in axil of leaf and between terminal stems. Males have not yet been recorded. The time of the hatching of the stem female has not been observed.

The writer has seen specimens from *Viburnum acerifolium* L., Maine and Maryland; *V. cassinoides* L., Maine; *V. dentatum* L., Maine and Virginia; *V. opulus* L., Maine and Connecticut; *V. plicatum*, Connecticut; *V. pubescens* Pursh, Maryland.

#### APHIS RUMEXICOLENS n. sp.

(Fig. 20, f, g)

ALATE VIVIPARA: Antenna 6-jointed, on no frontal tubercle, III with about 14 sensoria irregularly placed along whole length, V shorter than IV, VI longer than III; beak short, not or scarcely reaching second coxa; venation rather heavy but not shadowed; abdomen with black dorsum and large black lateral spots, cornicle shorter than tarsus or cauda, slightly bulging; cauda broad and blunt, about the length of tarsus but up-turned and appearing shorter, with a pair of dorsal tubercles near base.

APTEROUS VIVIPARA: Antenna 6-jointed, III without sensoria, base of VI subequal to V; beak short not reaching second coxa: abdomen not showing in alcoholic mount the black maculations of the alate form, cornicle shorter than tarsus, not longer than base of VI, thick at base and abruptly narrowing, tip with flare.

The cotype locality is Wallingford, Connecticut, where a collection of apterous and alate vivipara and pupal nymphs was made June 9, 1913, from *Rumex acetosella* L., by Dr. W. E. Britton.

It is needless to say that this is no typical *Aphis*, but it does not seem to slip into any of the several genera newly erected from *Aphis* and the writer hesitates to contribute to the modern tendency of establishing new genera on specific characters,—a conservatism which has disadvantages of its own, it must be confessed.

#### APHIS SALICETI Kaltenbach

(Fig. 20, a, b)

This insect has not previously been recorded for America. It was collected at Orono during late June and July, being abundant upon fennel (*Foeniculum vulgare*), July 25 upon *Heracleum lanatum*, and August 12 upon cultivated parsnip in 1913. The same year it was taken on cultivated parsnip July 25 at Machias, Maine, and on willow

(*Salix* sp.) July 30 at Cherryfield, Maine. Specimens have recently been submitted to the writer for determination which were collected from parsnip at New Haven, Connecticut, July 13, 1909, by Mr. A. I. Bourne.

The willow seems to have been the only host previously known for this species. That it accepts members of the *Umbelliferae* also is evident from these collections but the details of its life-cycle have not been worked out. This is "*A. saliceti* Kalt." of Buckton and of Theobald 1912, but evidently not of all writers.

APHIS DAVISI, new name

It seems necessary at this time to rename the aphid recorded as *Aphis populifoliae* Fitch by Mr. Davis (JOURNAL ECONOMIC ENTOMOLOGY, vol. 3, p. 489) as, according to Mr. Baker, *populifoliae* Fitch belongs under *Pterocomma*.

PROCIPHILUS XYLOSTEI de Geer

(Fig. 20, h, i)

A colony of what seems to be the first collection of this species for America was taken from *Lonicera* at Orono, Maine, July 7, 1914. A single stem female with her progeny of pupal nymphs and newly winged spring migrants were collected. The migrants apparently accord in structural characters with specimens of this species taken in Sweden by Albert Tullgren, and seen by the writer, though they are smaller.

PROCIPHILUS APPROXIMATUS n. sp.

ALATE VIVIPARA: Head with dorsal wax plates large, sub-circular and separated by fully half their width; beak extending to or a little beyond second coxæ, antennal segment III with  $\pm 25$  sensoria, IV with  $\pm 8$ , V with  $\pm 12$ , VI with  $\pm 12$ , IV about as long as tarsus exclusive of claw, shorter than V or VI which are sub-equal, III a little longer than V + VI; thorax with wax plates large, clear cut, approximate, being separated only by a straight line; wings not unusual for this genus; abdomen with large lateral wax plates covering nearly the width of the segment, and large dorsal wax plates.

The cotype material including pupæ and newly molted alates was collected from White Ash, Hawleyville, Connecticut, June 19, 1914, by Dr. W. E. Britton. It is a distinctive species especially with reference to the large approximate thoracic wax plates, and if migratory offers an interesting life-cycle problem.

LACHNUS ROSÆ Cholodkovsky

(Fig. 20, j)

A *Lachnus* which accords too well with the species indicated to entitle it to another name was made July 12, 1915, from wild rose near

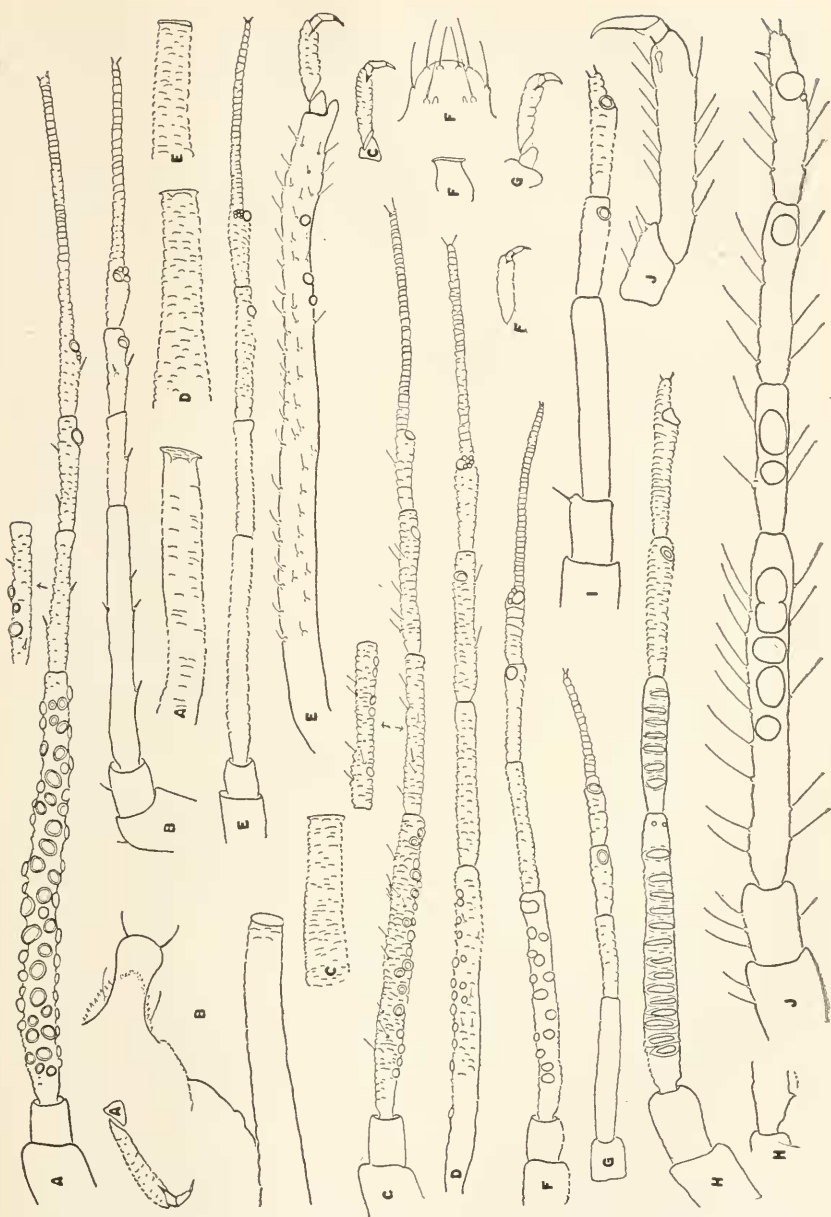


Fig. 20. A, *Aphis saliceti*, alate vivipara. B, *A. saliceti*, apterous vivipara, C, *A. viburniphila*, alate vivipara. D, *A. viburniphila*, apterous vivipara. E, *A. viburniphila*, apterous ovipara. F, *A. rumexicolens*, alate vivipara. G, *A. rumexicolens*, apterous vivipara. H, *Prociphilus xylostei*, alate vivipara. I, *P. xylostei*, apterous vivipara. J, *Lachnus rosae*, alate vivipara.

Orono. The colony was feeding on the stem and was accompanied by ants. Alate and apterous females and nymphs were taken at this time. Later, August 24, in the same locality an apterous female and nymph of this aphid were found. The body of the apterous female was glistening bronze and thickly hairy. The nymph was cinnamon brown. This has not been compared with actual specimens from Russia, but the figures accompanying the original description seem in this case adequate for determination. There is no previous record of this species for America.

## EASTERN APHIDS, NEW OR LITTLE KNOWN, PART II

By ARTHUR C. BAKER, *Bureau of Entomology, Washington, D. C.*

### GENUS MYZOCALLIS Pass

*Myzocallis punctatellus* (Fitch). (1855, p. 165.) This species has been placed as a synonym of *caryella* by Oestlund (1887, p. 45). The type specimen which is in the U. S. National Museum collection proves this not to be the case. The type is not in perfect condition, having lost the abdomen, one antennæ, the unguis of the other and both hind wings. However, enough of the specimen remains to make a determination positive and this remnant has been well mounted by Mr. Pergande. The antenna remaining on the type measures as follows: III, 0.592 mm.; IV, 0.496 mm.; V, 0.368 mm. Segment III is armed with seven rather large sensoria forming a row along the segment. The vertex and crown are armed with a number of tubercles on which spines are mounted. The wings are without markings excepting a clouding around the edge of the stigma and bands of brown bordering the veins. This bordering of the veins is rather faint in the type which is no doubt somewhat faded.

Mr. Davis kindly sent me specimens of an undescribed species from the Monell collection. These specimens, No. 370 X, are undoubtedly *punctatellus*. The banding along the veins is more distinct and the specimens are in good shape. They are alate viviparous females. The following description is drawn up from the specimens.

**ALATE VIVIPAROUS FEMALE:** Antennæ as follows: III, 0.576 mm.; IV, 0.432 mm.; V, 0.336 mm.; VI (0.144 mm. + 0.32 mm.). Segment III, with usually five large circular sensoria in a row. Labium short. Abdomen with two pairs of very prominent finger-like tubercles and with several smaller ones. Length of the larger pair of these tubercles about 0.16 mm. Cornicles about 0.065 mm. Length of fore wing 2.56 mm. Length from vertex to tip of cauda 1.44 mm.

General color pale yellowish. Antennal segments ringed with brown at their distal extremities; tarsi, abdominal tubercles and a spot near the distal extremity of the femora dark brown; wings banded with brown as previously described.